

ABSTRACT

The present invention employs a beam dividing prism corresponding to a size of a single pixel on a screen in order to create a plurality of viewing zones for multi-viewer, in which a prism panel having an 1-dimensional or 2-dimensional arrangement of a prism cell for dispersing beam in various directions is coupled to the 3-dimensional image projection screen in order to increase the number of the viewing zones, and in which the number and position of the available viewing zones are determined by the number and a relative position of disperse surfaces in the prism cell.

By using the present invention, the desired number of the viewing zones can be created by selectively adopting the prism cells, so realizing the 3-dimensional image display system for multi-viewer.